

First Quarter Arch Bridge Design Competition

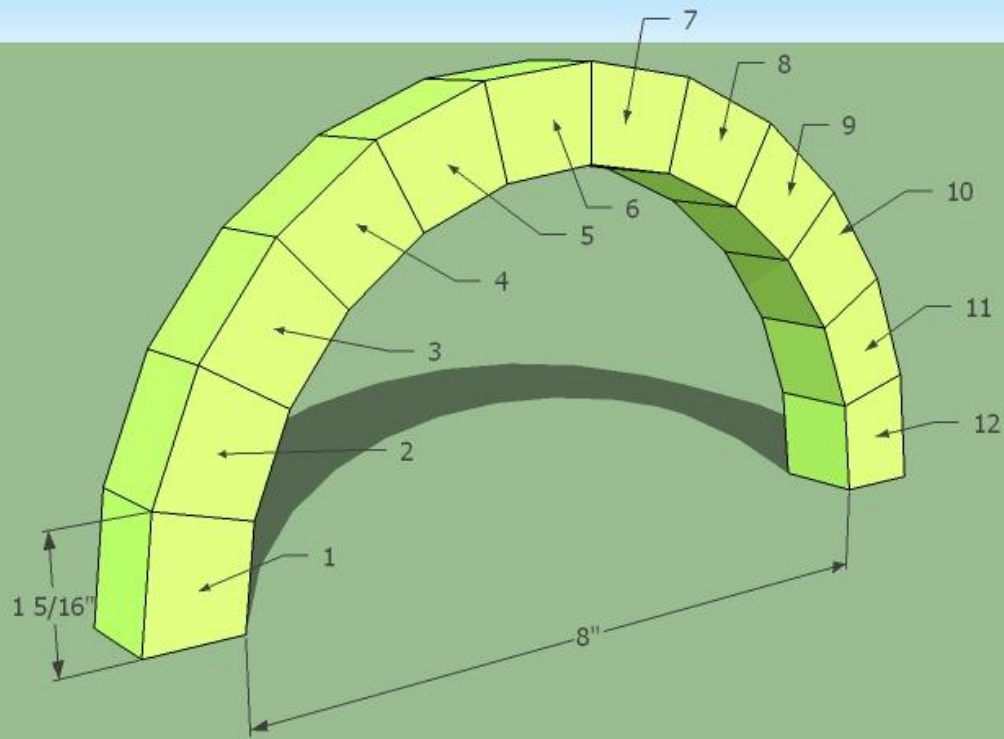
❖ By: Kevin S, Cole, Alvin

Design:

- ❖ Our design consists of a foam arc that has been cut up into 12 equal pieces that, when assembled, forms an arc.
- ❖ The keystone is really any piece, since each block is essential to the arc, but the 2 center blocks would be the most likely candidates.
- ❖ Foam is the opportune material, since it is abrasive, light weight, and easy to cut.
- ❖ We predict that the span will be 8 inches long, and that our longest side will be 1 and 5/16th of an inch. Therefore, our overall score will be...

• **6.095238**

Picture of our Idea:



Final Design:



Final Design:

- Our bridge had a final span of $7 \frac{3}{4}$ "
- Our single piece length was $1 \frac{1}{4}$ "
- Our resulting final score was 6.2

Lessons Learned:

- We learned that recycling my bridge from last year, leaving the rest of the week free so that we could work on JPL, was not only Neato's intent in making our group, but also made Cole and I's jobs much easier.
- Since my group won by a landslide, Neato made the 2nd place group winners as well to make everything fair which I totally agree with.
- Next year, depending on what the invention challenge is, I will probably do this challenge honestly and not reuse the same bridge.

